Amendments to the Specification

Amend the paragraph beginning on page 8 at line 5 as follows:

FIG. 2 shows the construction of the beam source according to the first embodiment of the present invention. The discharge tube 11 is cylindrically shaped and configured of a tube formed of quartz glass, ceramic, or the like. The discharge tube 11 is a hermetically sealed construction formed by the gas inlet 12 disposed on the upstream end of the discharge tube 11 for introducing gas therein, and the beam-emitting electrode 14 disposed on the downstream end of the discharge tube 11 and formed with a plurality of beam-emitting holes 14a for emitting the beam formed in the discharge tube 11. Within the discharge tube 11 are disposed an upstream electrode 23 formed with a plurality of openings that enable the passage of gas through the upstream end, and a mesh electrode 24 comprising a thin plate formed with a plurality of openings. A means is provided for converting gas introduced between the upstream electrode 23 and middle mesh electrode 24 into plasma. In the present embodiment, this means is the RF coil 20 provided for forming inductively coupled plasma. A high frequency magnetic field is formed in the discharge tube 11 by supplying an RF current at, for example, 13.56 MHz from the power source 21. The gas introduced between the upstream electrode 23 and mesh electrode 24 is excited by this magnetic field and transformed into plasma. In addition to the ICP generating coil described above, it is also possible to employ an ECR, helicon wave plasma coil, electromagnetic coil, microwaves, or the like to generate plasma. The plasma-generating device can use a frequency within the range from 1 MHz to 20 GHz and is not limited to 13.56 MHz.

Amend the paragraph beginning on page 15 at line 26 as follows:

FIG. 9 shows a beam source according to a second embodiment of the present invention. Unlike the flat plate-like ~~shaped~~ shape shown in FIG. 2, the upstream electrode 30 in this case includes a cylindrically shaped portion. The larger surface area of this electrode 30 increases the area of contact with plasma formed in the chamber 25, thereby increasing the amount of charged particles reacting on the surface of the electrode and stabilizing the potential of the plasma. The remaining construction of the beam source according to the second embodiment is the same as the beam source shown in FIG. 2 and has the same operations.